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Notice of Allowability	Application No.	Applicant(s)	
	10/709,843	BALSDON ET AL.	
	Examiner	Art Unit	
	Phallaka Kik	2825	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment and drawings filed on 8/16/2006 and interview conducted on 9/1/2006.
2. ☒ The allowed claim(s) is/are 13-15,23-43, wherein claims 1-12,16-22 have been cancelled and claims 13-14,28-29,31,30,32,15,23-27,33-43 have been renumbered as 1-24 respectively.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20060901</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. This Office Action responds to Applicant's amendment and drawings filed on 8/16/2006 and interview conducted on 9/1/2006. Claims 13-15,23-43 are pending, wherein claims 1-12,16-22 have been cancelled, claims 13-15 have been amended and claims 23-43 have been newly added. Claims 13-15,23-43 have been examined and are allowed, wherein claims 32 and 42 are subjected to the following Examiner's Amendment.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Melvin D. Chan (Reg. No. 39,626) on 9/1/2006.

The application has been amended as follows:

In the claims:

As per **claim 32**, "the other" (line 2) has been replaced with --other--.

As per **claim 42**, "track," (line 3) has been replaced with -- track or--;
", or the first requirement" (line 3) has been deleted.

Drawings

3. The drawings were received on 8/16/2006. These drawings are approved by the Examiner.

Allowable Subject Matter

4. **Claims 13-15,23-43** are allowed.

5. The following is an examiner's statement of reasons for allowance:

As per **claims 13-15,23-43**, the independent claims 13,33,39, from which the respective claims depend, recites the methods comprising the inventive steps of determining the track width using at least one pin value, including current value, associated with the plurality of pins and performing the automatic routing of the net using the track segment in the gridless layout in which the track segment is routed to have the determined track width, as claimed, which the prior arts made of record failed to teach or suggest. In particular, the prior arts made of record teach various methods of performing automatic routing for gridless layout involving pins, nets and track widths (see especially **Ng**, U.S. Patent No. 4,965,739, especially Fig. 2, col. 3, lines 50-57; **Teig et al.**, U.S. Patent No. 6,526,555, especially col. 12, lines 35-67; **Dutta et al.**, U.S. Patent No. 6,349,403, especially col. 15, line 53 to col. 16, line 44; **Do et al.**, U.S. Patent No. 5,353,235, especially col. 7, lines 1-30; **Siegel et al.**, U.S. Patent No. 7,058,913, especially col. 12-14). However, none of the prior arts made of record teach or suggest the use of pin value including the current value associated with the pin, from which the track width is determined, as part of the automatic routing process as claimed. Accordingly, the claimed invention is novel and un-obvious over the prior arts made of record.

Conclusion

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 571-272-1895. The examiner can normally be reached on Monday-Thursday, 8:30AM-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner for Patents

Application/Control Number: 10/709,843
Art Unit: 2825

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P. O. Box 1450

Alexandria, VA 22313-1450

or faxed to:

571-273-8300

A handwritten signature in black ink, appearing to read "Phallaka Kik", with a stylized flourish at the end.

Phallaka Kik
Primary Examiner
September 1, 2006